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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/710,605	11/10/2000	Kelly Robert McCaw	PALM-3302.US.P	5071

7590 01/21/2003

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EXAMINER
LE, MIRANDA

ART UNIT	PAPER NUMBER
2177	

DATE MAILED: 01/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/710,605	MCCAW, KELLY ROBERT	
	Examiner	Art Unit	
	Miranda Le	2177	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 November 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

1. The drawings are objected to because they fail to show necessary textual labels of features or symbols in Fig. 3 as described in the specification. For example, placing a label, "flat panel display", with elements 105, would give the viewer necessary detail to fully understand this element at a glance. A ***descriptive*** textual label for ***numbered elements*** 210, 215, 225, 235, 245 in this figure would be needed to fully and better understand these figures without substantial analysis of the detailed specification. Any structural detail that is of sufficient importance to be described should be shown in the drawing. Optionally, applicant may wish to include a table next to the present figure to fulfill this requirement. See 37 CFR 1.83. 37 CFR 1.84(n)(o) is recited below:

"(n) Symbols. Graphical drawing symbols may be used for conventional elements when appropriate. The elements for which such symbols and labeled representations are used must be adequately identified in the specification. Known devices should be illustrated by symbols which have a universally recognized conventional meaning and are generally accepted in the art. Other symbols which are not universally recognized may be used, subject to approval by the Office, if they are not likely to be confused with existing conventional symbols, and if they are readily identifiable.

(o) Legends. Suitable descriptive legends may be used, or may be required by the Examiner, where necessary for understanding of the drawing, subject to approval by the Office. They should contain as few words as possible."

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-7, 11-17, 21-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boothby et al. (US Patent No. 5,943,676), as applied to claims above, in view of Gehani et al. (US Patent No. 5,765,171).

4. As per claims 1, 11, 21, Boothby teaches:

"a) designating a first database as a source database and a second database as a target database" at col. 2, lines 34-63;

"b) examining a first modification flag of a first data record in said source database" at col. 21, lines 27-35;

"c) provided that said first modification flag is set, propagating said first data record to said target database" at col. 19, line 54 to col. 20, line 11;

Boothby does not teach "d) provided that said first modification flag is not set, comparing a first modification count of said first data record with a second modification count of a corresponding data record in said target database, said first and second modification counts each being a value indicating how many times said first data record and said corresponding data record has been modified respectively". However, Gehani teaches this limitation at col. 3, lines 10-24, col. 5, line 63 to col. 6, line 29;

Thus, it would have been obvious to one ordinarily skilled in the art at the time of the invention to combine the teachings of Boothby with the teachings of Gehani to include step (d) in order to provide a database version vector that keeps track the total number of updates that

were applied to any of the x data items in its respective database replica and on which of the n servers each update was originally performed.

Boothby does not teach "e) provided that said first modification count has a higher value than said second modification count, updating said corresponding data record according to said first data record, wherein said steps a) through e) can be completed without comparing raw data of said first data record and said corresponding data record". However, Gehani teaches this limitation at col. 6, lines 31-38.

Thus, it would have been obvious to one ordinarily skilled in the art at the time of the invention to combine the teachings of Boothby with the teachings of Gehani to include step (e) in order to provide a protocol that determines whether replication is necessary between two replicas without incurring overhead associated with examining all data items in either the source and/or recipient database replicas.

4. As per claims 2, 12, 22, Gehani teaches "the step f) of incrementing said second modification count to said higher value of said first modification count" at col. 5, lines 1-23.

5. As per claims 3, 13, 23, Boothby teaches "steps a) through f) are repeated until all of said data records in said source database have been processed" at col. 9, lines 49-61.

6. As per claims 4, 14, 24, Boothby teaches "g) redesignating said second database as said source database and said first database as said target database" at col. 10, line 65 to col. 11, line 30;

"h) performing said steps a) through f) repeatedly until all of said data records in said source database have been processed" at col. 9, lines 49-61.

7. As per claims 5, 15, 25, Boothby teaches "step c) comprises the steps of: updating said corresponding data record in said target database according to said first data record in said source database, provided that said first modification flag is set to indicate that said first data record has been modified in said source database and that said corresponding data record exists in said target database" at col. 11, lines 13-30; and "clearing said first modification flag" at col. 19, line 54 to col. 20, line 11.

8. As per claims 6, 16, 26, Boothby teaches "step c) comprises the steps of: creating a new data record in said target database according to said first data record in said source database, provided that said first modification flag is set to indicate that said first data record is new in said source database and that said corresponding data record does not exist in said target database" at col. 16, lines 22-30, col. 21, lines 27-41, col. 18, lines 31-51; and clearing said first modification flag" at col. 19, line 54 to col. 20, line 11.

9. As per claims 7, 17, 27, Boothby teaches "step c) comprises the step of marking said corresponding data record as deleted in said target database, provided that said first modification flag is set to indicate that said first data record has been deleted from said source database and that said corresponding data record exists and is not already marked as deleted in said target database" at col. 7, lines 39-61, col. 22, lines 3-11.

10. Claims 8, 18, 28, are rejected under 35 U.S.C. 103(a) as being unpatentable over Boothby et al. (US Patent No. 5,943,676), as applied to claims above, in view of Gehani et al. (US Patent No. 5,765,171), and further in view of Boothby et al. (US Patent No. 5,648,990).

11. As per claims 8, 18, 28, Boothby does not teach "first database and said second database reside in different host systems". However, Boothby teaches this limitation at col. 4, lines 19-31.

Thus, it would have been obvious to one ordinarily skilled in the art at the time of the invention to include "first database and said second database reside in different host systems" in order to make it possible to synchronize databases of radically different design, operating on different computer platforms.

12. Claims 9, 10, 19, 20, 29, 30, are rejected under 35 U.S.C. 103(a) as being unpatentable over Boothby et al. (US Patent No. 5,943,676), as applied to claims above, in view of Gehani et al. (US Patent No. 5,765,171), and further in view of Taivalsaari et al. (US Patent No. 6,366,898).

13. As per claims 9, 19, 29, Boothby does not teach "first database resides in a personal digital assistant (PDA)". However, Taivalsaari teaches this limitation at col. 2, lines 14-29.

Thus, it would have been obvious to one ordinarily skilled in the art at the time of the invention to combine the teachings of Boothby with the teachings of Taivalsaari to include in order to provide a method of creating and periodically loading a database of classfile on a non traditional computer device, such as a PDA.

14. As per claims 10, 20, 30, Boothby does not teach "second database resides in a computer system to which a personal digital assistant (PDA) can be coupled via a cradle device". However, Taivalsaari teaches this limitation at col. 6, lines 30-53.

Thus, it would have been obvious to one ordinarily skilled in the art at the time of the invention to combine the teachings of Boothby with the teachings of Taivalsaari to include "second database resides in a computer system to which a personal digital assistant (PDA) can be coupled via a cradle device" in order to provide a method of creating and periodically loading a database of classfile on a non traditional computer device, such as a PDA, cellular telephone,..., or other embedded device.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miranda Le whose telephone number is (703) 305-3203. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene, can be reached on (703) 305-9790. The fax number to this Art Unit is (703) 746-7238.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Miranda Le
Examiner-AU 2177
January 10, 2003

JOHN BREENE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100